IN THE CLAIMS:

Please amend claims 36 and 38 as follows:

LISTING OF CURRENT CLAIMS

Claims 1-22. (Canceled)

23. (Previously Presented) A method to control growth of a magnetic alloy-encapsulated carbon-base nanostructure, comprising:

microwave plasma electron cyclotron resonance chemical vapor depositing an additive and a catalyst on a substrate at a power of 500W - 5000W, a working pressure of less than 5×10^{-3} Torr, and under a magnetic field;

plasma pretreating said substrate by:

biasing with a direct current;

heat treating at a temperature of 400 °C - 850 °C; and

etching said substrate; and

reacting said substrate with a gas and post-treating under said magnetic field.

24. (Previously Presented) The method according to claim 23, wherein said catalyst and said additive comprise a magnetic metal or an alloy thereof.

25. (Previously Presented) The method according to claim 23, wherein said catalyst comprises a carbon-soluble metal, an alloy thereof, or a nonmetal.

26. (Previously Presented) The method according to claim 23, wherein said catalyst comprises a permanent magnetic rare earth element alloy having carbon

solubility.

27. (Previously Presented) The method according to claim 23, wherein said catalyst comprises a lanthanide or an alloy thereof.

28. (Previously Presented) The method according to claim 23, wherein said additive comprises copper, gold, platinum or a lanthanide.

29. (Previously Presented) The method according to claim 25, wherein said additive comprises copper, gold, nitrogen, chromium, boron, titanium, vanadium, zirconium, yttrium or a lanthanide.

30. (Previously Presented) The method according to claim 23, wherein plasma pretreating changes the size, shape and activity of said catalyst.

31. (Previously Presented) The method according to claim 23, wherein plasma pretreating controls the size, shape, and directional growth of said carbon-base nanostructure.

32. (Previously Presented) The method according to claim 23, wherein said substrate comprises a silicon wafer, a stainless steel or a quartz glass.

33. (Previously Presented) The method according to claim 23, wherein plasma pretreating further comprises physical vapor depositing, chemical vapor depositing, electrochemically plating, coating, or transfer printing.

34. (Previously Presented) The method according to claim 33, wherein said physical vapor depositing comprises sputtering or evaporating.

35. (Previously Presented) The method according to claim 33, wherein said chemical vapor depositing comprises plasma enhanced chemical vapor depositing.

36. (Currently Amended) The method according to claim ~~33~~ 23, wherein said ~~electrochemically plating comprises~~ plasma pretreating further comprises physical vapor depositing, chemical vapor depositing, coating, transfer printing, electroplating or electroless plating.

37. (Previously Presented) The method according to claim 33, wherein said coating said substrate with a metal salt or an alloy thereof of said catalyst comprises rotating coating or immersion plating, then heating said catalyst, and reducing with hydrogen.

38. (Currently Amended) The method according to claim 33, wherein said transfer printing ~~with a metal salt or an alloy thereof of said catalyst~~ comprises ~~forming~~ coating said catalyst on a rubber elastomer, contacting the substrate with said coated elastomer to transfer said catalyst on said substrate, then heating said catalyst, and reducing with hydrogen.

39. (Previously Presented) The method according to claim 33, wherein said

substrate comprises a catalyst metal thin layer or grain layer at a surface by a photo engraving process, an electron beam lithography, a printing, a transfer printing, or an ion implantation.

40. (Previously Presented) The method according to claim 23, wherein said substrate comprises a uniform thin layer pattern or a grain layer pattern.

41. (Previously Presented) The method according to claim 23, wherein said substrate comprises a non-uniform thin layer pattern or grain layer pattern.

42. (Previously Presented) The method according to claim 23, wherein said gas comprises a carbon-containing gas or a nitrogen-containing gas.

43. (Previously Presented) The method according to claim 42, wherein said carbon-containing gas comprises methane, ethane, propane, acetylene, benzene or a mixture thereof.

44. (Previously Presented) The method according to claim 42, wherein said nitrogen-containing gas comprises ammonia, nitrogen, an amine of methane, ethane, propane, acetylene, or benzene, or a mixture thereof.

45. (Previously Presented) The method according to claim 23, wherein said catalyst comprises iron, cobalt, nickel, an iron-platinum alloy, a cobalt-platinum alloy, silicon, $Nd_2Fe_{14}B$, or $Sm(Co,Cu)_5$.